

ASSIGNMENT 4

Team Batch No: B6-M2E

TEAM MEMBERS

1. MANIKANDAN V
2. PRIYA D
3. HARISHMA K H
4. VARSHIKA V

TEAM ID: PNT2022TMID12569

Question 1:

Pull an image from docker hub and run it in docker playground.

03:57:32

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cddvkms0_cddvkvm0qau000a07j5g

IP
192.168.0.8

OPEN PORT

Memory
1.24% (49.52MiB / 3.906GiB)

CPU
0.31%

SSH
ssh ip172-18-0-22-cddvkms0qau000a07j50@direct.labs.pla

DELETE

EDITOR

```
#####  
# WARNING!!!! #  
# This is a sandbox environment. Using personal credentials #  
# is HIGHLY! discouraged. Any consequences of doing so are #  
# completely the user's responsiblilites. #  
# #  
# The PwD team. #  
#####  
[node1] (local) root@192.168.0.8 ~  
$ docker pull hello-world  
Using default tag: latest  
latest: Pulling from library/hello-world  
2db29710123e: Pull complete  
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7  
Status: Downloaded newer image for hello-world:latest  
docker.io/library/hello-world:latest  
[node1] (local) root@192.168.0.8 ~  
$ docker run hello-world
```

Activate Windows
Go to Settings to activate Windows.

03:57:05

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cddvksm0_cddvkvm0qau000a07j5g

IP
192.168.0.8

OPEN PORT

Memory
1.26% (50.45MiB / 3.906GiB)

CPU
0.39%

SSH
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla

DELETE

EDITOR

2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
(amd64)

3. The Docker daemon created a new container from that image which runs the
executable that produces the output you are currently reading.

4. The Docker daemon streamed that output to the Docker client, which sent it
to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
\$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
<https://hub.docker.com/>

For more examples and ideas, visit:
<https://docs.docker.com/get-started/>

[node1] (local) root@192.168.0.8 ~
\$

Activate Windows
Go to Settings to activate Windows.

Question 2:

Create a docker file for the jobportal application and deploy it in Docker desktop application.

DOCKERFILE:

```
1 FROM python:3.8-buster
2
3 WORKDIR /app
4
5 COPY requirements.txt /app/
6
7 RUN pip install -r requirements.txt
8
9 COPY . /app/
10
11 RUN cp .env.dev.sample .env
12
13 EXPOSE 8000
14
15 RUN chmod +x entrypoint.sh
16
17 CMD ["sh", "entrypoint.sh"]
```

DEPLOYMENT OF JOBPORTAL APPLICATION:

Containers

Images

Volumes

Dev Environments BETA









Extensions BETA

Add Extensions


Containers [Give feedback](#)


A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)


☐ Only show running containers

	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	 agitated_neumann 918d20882039	icr.io/helloapp/ibm:latest	Exited (137)	49160:8080		  
<input type="checkbox"/>	 jolly_turing b62c0712bdd3	jobportalapplication:latest	Running	1234:8000	4 minutes ago	  

Showing 2 items



RAM 3.06GB CPU 0.57%  Connected to Hub

v4.13.0 

OUTPUT:



Web Developer

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[Apply](#)



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Computer & Information Systems Manager (CISM) at HYT company.

[Apply](#)



Computer Hardware Engineer

Computer Hardware Engineer at 7Tech company.

[Apply](#)



Big Data Engineer

Big Data Engineer at SMGT company.

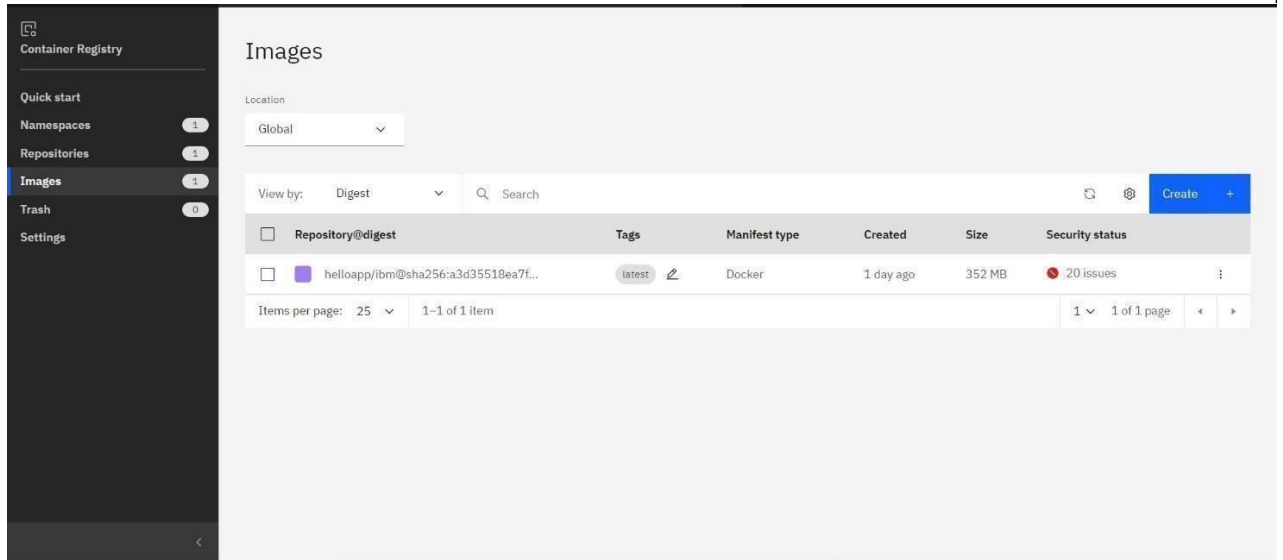
[Apply](#)

Question 3:

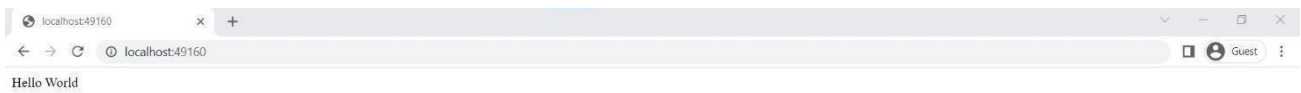
Create a IBM container registry and deploy helloworld app or

jobportapp. IBM CONTAINER REGISTRY

DEPLOYMENT:

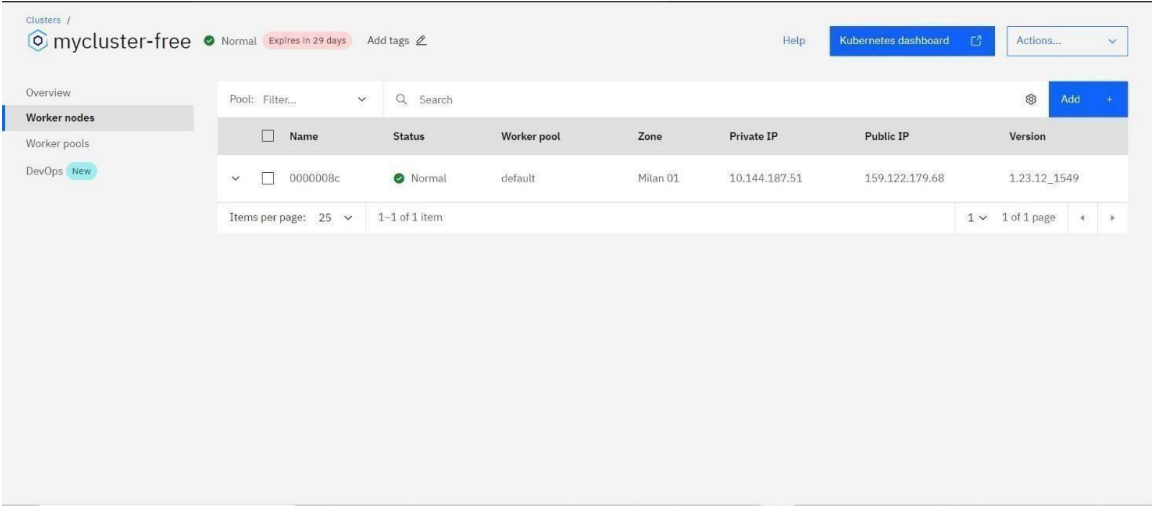


OUTPUT:



Question 4:

Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.
CREATING KUBERNETES CLUSTER IN IBM CLOUD AND EXPOSING NODEPORT:



The screenshot displays the IBM Cloud Clusters management interface. At the top, the cluster is identified as 'mycluster-free' with a status of 'Normal' and an expiration notice of 'Expires in 29 days'. The left sidebar contains navigation links for 'Overview', 'Worker nodes', 'Worker pools', and 'DevOps', with 'Worker nodes' currently selected. The main content area features a table of worker nodes. A single node is listed with the name '0000008c', status 'Normal', worker pool 'default', and zone 'Milan 01'. It provides both a private IP (10.144.187.51) and a public IP (159.122.179.68), with a version of '1.23.12_1549'. The table includes search and filter controls at the top and pagination at the bottom, indicating '1-1 of 1 item'.

Name	Status	Worker pool	Zone	Private IP	Public IP	Version
0000008c	Normal	default	Milan 01	10.144.187.51	159.122.179.68	1.23.12_1549

OUTPUT:



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